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ABSTRACT

The effects of prompting by peers on the rate of completing assignments and on the correspondence of noon-time plans with the amount of actual studying exhibited the same evening was observed with 15 undergraduate university students. Subjects were provisionally accepted students enrolled in a one credit pass/fail course. Students initially earned points for making plans to study in a library study hall. A contingency was implemented during which points could be earned for matching planned time with actual time in the study hall, and for completing assignments. Following the point contingency, two separate prompting conditions were utilized within individual reversal designs. One-half of these subjects who did not increase the number of assignments completed or points earned per week during the point condition were assigned to a peer prompting condition. Peers first prompted the subjects by telephone. Those who did not respond during the telephone prompting condition were subsequently assigned to an in-person prompting condition. The other half of those subjects who did not respond during the point condition were assigned to the telephone prompting condition three weeks later than the first half. This multiple baseline design across halves of subjects produced the same effect in both halves, an increase in both studying and completed assignments. The peer prompt by telephone was demonstrated to be the most effective condition. (Author)

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THE EFFECTS OF PEER PROMPTING ON THE STUDYING OF UNIVERSITY STUDENTS

by

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INTRODUCTION

Various techniques (e.g., self recording, contingency contracting and contingent reinforcement) have been used to modify the study behavior exhibited by students. A more recent approach focused upon a student's verbal behavior; the correspondence between what is said and what is actually done. If this correspondence is high, then the advantage of such a procedure is that verbal behavior may be more easily monitored and manipulated than actual behavior.

Class based point contingencies have been utilized to increase the correspondence between planning to study and the actual amount of time spent studying (Cohen, 1976; Sowers; 1976). A reported problem with such a contingency is the failure, on the part of the student, to repond to it. One possible explaination may be that points have a low incentive value when compared with other reinforcing activities in the environment. In addition, students may lack the appropriate skills necessary for studying and therefore, do not know how to respond even when given reinforcement for doing so. The purpose of the present study was to provide prompts through a peer model to induce students to earn the necessary amount of points to pass the course.

METHOD

Subjects

Subjects were fifteen provisionally accepted first semester students who voluntarily enrolled in a one credit pass/fail study course. Provisionally accepted students have not met university entrance requirements. They would be admitted into Drake Univeristy at the end of their first semester if they earn a minimum grade point average of 2.0 for 10 semester credit hours.

Procedure

A monitored study hall was available for studying Monday through Thursday, 7:00 p.m. - 10:00 p.m. for 13 weeks. Students could pass the course by earning 6,500 points and completing 30 assignments related to their other course work.

Each Monday through Thursday students filled out a daily study planner upon which they indicated the total amount of time they planned to study in a study hall the same evening. During baseline students earned 140 points per day for filling out their planners. Baseline lasted for three weeks.

The experimenter recorded daily the amount of correspondence between noon-time planned study, actual time spent studying the same evening and the number of assignments completed each evening.

Immediately following baseline a point contingency was implemented during which points were earned contingent upon correspondence between planned and actual study time and, completion of assignments. Students earned 15 points for every 15 minutes of planned study that corresponded to 15 minutes of actual study time. Students also earned 15 points for each completed assignment.

Those students who did not remain within 100 points of a projected point earning line were placed into ordered pairs based upon their point totals. A coin toss within each pair divided the students into two groups. Those students assigned to the first group were introduced to a peer model whose purpose was to prompt them to attend the study hall. Peers used in the prompting conditions were former provisionally accepted students who had been enrolled in a similar course the previous year. Students in the second group remained in the point contingency condition.

Peers first prompted the students in group one by telephone three evenings per week. A maximum of three calls per evening one each hour, were made to the subjects. During the telephone prompt condition the peer called up his/her student and invited him/her to attend the study hall. If the subject accepted the invitation, arrangements were made to meet at the library. If the subject declined, the peer was instructed not to provide any additional prompts but to call back in one hour.

Following two weeks in the telephone prompt condition, students in group one were returned to the point contingency

condition for two weeks. After two weeks in the point contingency condition students were placed into an in-person prompt condition. Peers contacted their students three times per evening by visiting their dormitory rooms and inviting them to study in the study hall. Immediately following two weeks in the person prompt condition, students in group one returned to the point contingency condition for the remaining two weeks of the study.

Students in group two were assigned to the telephone prompt condition three weeks later than the first half of the students. Immediately following a telephone prompt condition of three weeks, students were returned to the point contingency condition for the remaining two weeks of the study.

Reliability

Reliability was assessed once each week for ten weeks across all conditions for the number of assignments completed in the study hall and the number of 15 minute units spent in the study hall. Reliability was also assessed each evening across all conditions for the number of contacts per evening peers had with their subjects.

RESULTS

The major dependent variables were total number of points earned per week and the number of assignments completed per week. The mean number of assignments completed per week was greater in the telephone prompt condition (see Table 2). The effects were similar but of less magnitude for the total number of points earned per week. Comparisions across groups indicated that the number of assignments remained stable for group two while group one increased.

Reliability for the number of assignments completed per evening ranged from 70% to 100% with a mean of 87%. Percent reliability for the number of 15 minute units each student spent in the study hall remained at 100% for the entire study. Reliability between the subjects and their peers ranged from 78% to 100% with a mean of 88%.

DISCUSSION

The multiple baseline design across halves of subjects produced the same effect in both halves (e.g., an increase in studying and in completing assignments). However, recovery following the second contingent points condition was less than that following the first point contingency. Studying appears to be a low probability behavior (Bristol & Sloane, 1974; Nielsen, 1974) and as such, may not be amenable to a reversal design. The authors conclude that a multiple baseline design would be more appropriate.

Table 1

Number of Points Earned and Assignments Completed (in parentheses) Each Week by Students in Group 1, Group 2 and Control Group

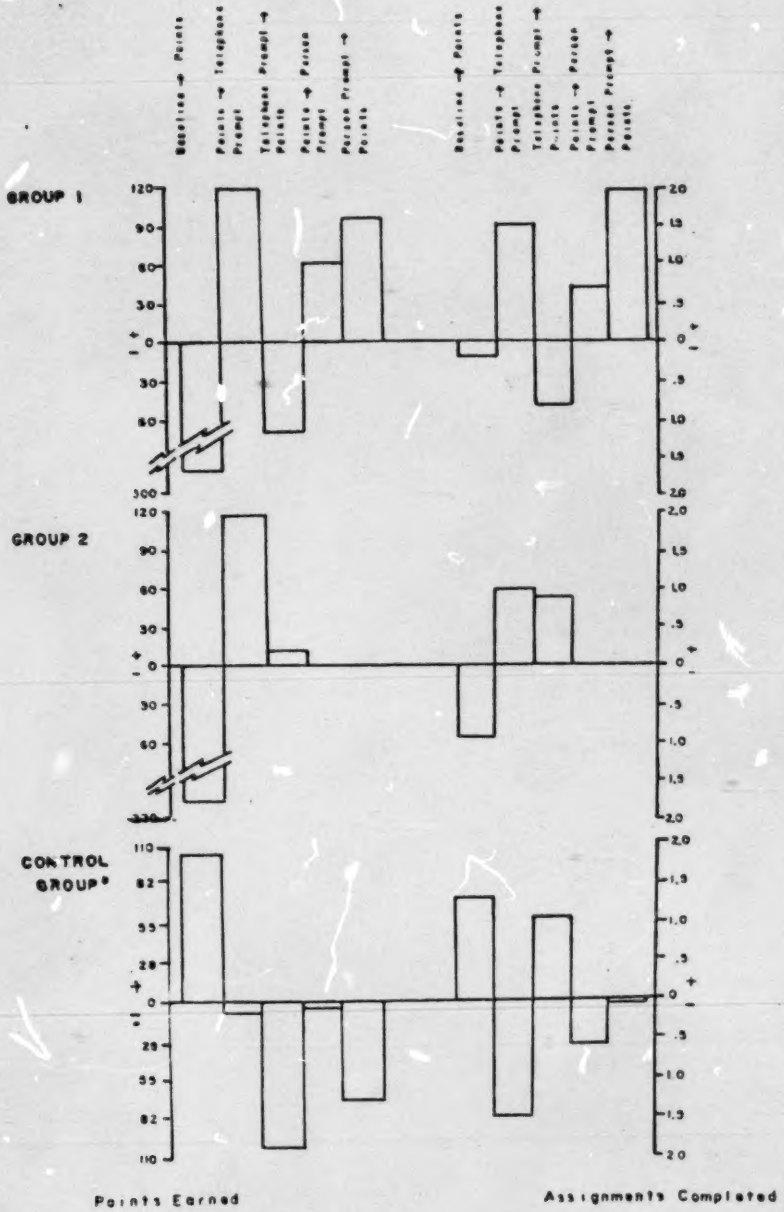
Experimental Conditions

Semester Weeks	Baseline 1	2	3	Points 4	5	Telephone Prompt 6	7	Points 8	9	Person Prompt 10	11	Points 12	13	Total
Subject														
GROUP 1														
1	370	510	560	300	200	200	380	200	100	200	150	270	205	3545
	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(2)	(4)
2	320	510	560	150	260	397.5	432.5	417	470	522.5	530	620	972.5	6109
	(0)	(0)	(0)	(0)	(0)	(2.5)	(1.5)	(1.5)	(2.5)	(4.5)	(3)	(5)	(9.5)	(30)
3	370	560	560	200	220	402.5	252.5	100	200	360	267.5	150	0	3622.5
	(0)	(0)	(0)	(0)	(0)	(1.5)	(.5)	(1)	(0)	(.5)	(.5)	(0)	(0)	(4.5)
4	420	510	510	150	150	190	167.5	115	100	132.5	87.5	50	0	2582.5
	(1.5)	(0)	(0)	(0)	(0)	(1)	(1.5)	(1)	(0)	(.5)	(.5)	(0)	(0)	(6)
5	420	560	560	252.5	200	320	530	395	227.5	335	487.5	557.5	904	5849
	(2)	(1.5)	(0)	(.5)	(0)	(1)	(4)	(2)	(.5)	(2)	(1.5)	(3.5)	(10)	(29.5)
GROUP 2														
1	370	510	560	72.5	240	290	320	260	200	195	240	200	100	3557.5
	(2.5)	(0)	(1)	(1.5)	(2)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9)
2	420	560	560	200	312.5	290	150	145	432.5	417.5	320	200	710	4717.5
	(1)	(1)	(1)	(0)	(.5)	(0)	(0)	(0)	(2.5)	(2.5)	(1)	(0)	(7)	(16.5)
3	420	560	510	275	290	200	297.5	202.5	410	470	455	687.5	312.5	5090
	(1.5)	(.5)	(1)	(1)	(1)	(0)	(.5)	(.5)	(2)	(2)	(3)	(5.5)	(1.5)	(20)
4	420	460	560	202.5	320	207.5	195	140	472.5	367.5	485	150	0	3920
	(2.5)	(0)	(2)	(.5)	(1.5)	(.5)	(0)	(0)	(1.5)	(1.5)	(4)	(0)	(0)	(14)
5	420	510	510	195	240	200	387.5	410	267.5	402.5	387.5	521.5	584.5	5070
	(4)	(3)	(1)	(1)	(1)	(0)	(1.5)	(2)	(2.5)	(1.5)	(.5)	(5.5)	(5)	(28.5)
6	420	560	560	200	150	305	200	150	100	200	575*	275	200	3895
	(2.5)	(1)	(.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3)	(1)	(0)	(8)
CONTROL GROUP														
1	420	560	560	292.5	267.5	500	440	417.5	395	515*	695*	305	695	6147.5
	(2.5)	(.5)	(0)	(.5)	(.5)	(4)	(3)	(2.5)	(2)	(4)	(5)	(2)	(2)	(34.5)
2	420	560	510	672.5	477.5	522.5	577.5	575	500	22	555	470	500	6502.5
	(2.5)	(2)	(3)	(1.5)	(1.5)	(.5)	(2.5)	(2.5)	(3)	(0)	(3.5)	(3)	(4.5)	(30)
3	420	560	560	502.5	530	620	705	150	582.5	657.5	515	290	620	6515
	(2.5)	(0)	(1)	(4.5)	(3)	(1)	(4)	(0)	(4.5)	(2.5)	(4)	(1.5)	(3)	(31.5)
4	420	560	560	785	702.5	560	567.5	500	725	687.5	395	612.5	140	7213.5
	(5.5)	(2.5)	(3)	(7)	(5.5)	(2.5)	(3.5)	(4)	(4)	(3.5)	(3)	(3.5)	(1)	(50.5)

* = subject placed into person prompt condition
* = subject placed into telephone prompt condition

TABLE 2

Mean Difference Scores Between Adjacent Conditions for Points Earned and Assignments Completed for Group 1, Group 2 and Control Group



* Data analyzed by Group 1 condition changes

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